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10/663,125

09/16/2003

David Louis Kaminsky

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BOCA RATON, FL 33487

EXAMINER

LEE, PHILIP C

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/663,125

Applicant(s)

KAMINSKY ET AL.

Examiner

Philip C. Lee

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/16/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is responsive to the Applicant's Election to the Restriction Requirement in the reply filed on September 17, 2007. Applicant's election without traverse of Group II, claims 7-16 is acknowledged.
2. Claims 7-16 are presented for examination and claims 1-5 are withdrawn from consideration.

### *Objection*

3. Claims 6-17 are objected to because of the following informalities: Claims 6 (lines 6-7), 8 (lines 2-3 and 4-5), 12 (lines 7-8), 14 (lines 3-4 and 5-6) are objected to because "said retrieved set" and "said configuration parameters in said retrieved set" should have been "said set of configuration parameters retrieved"; claims 9, (lines 4 and 5), 10 (lines 1-2 and 2-3), 15 (lines 5-7), 16 (lines 2-3), "said randomly selected new configuration" and "said new configuration" should have been "said new configuration that is randomly selected"; claim 11 (lines 2-4) and 17 (line 2-4), "said reconfigured node" should have been "said node that is reconfigured"; claims 11 (line 5) and 17 (line 5), "said selected new configuration" should have been "said new configuration selected".

Art Unit: 2152

4. Claim 12-17 are objected to because according to MPEP 608.01, antecedent basis for the terms appearing in the claims, while an applicant is not limited to the nomenclature used in the application as filed, he or she should make appropriate amendment of the specification whenever this nomenclature is departed from by amendment of the claims so as to have clear support or antecedent basis in the specification for the new terms appearing in the claims. Applicant will be required to make appropriate amendment to the description to provide clear support or antecedent basis for the terms appearing in the claims provided no new matter is introduced. The term "A machine readable storage" is lacking clear support or antecedent basis in the description of the specification.

*Claim Rejections – 35 USC 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7-11 and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms lack proper antecedent basis:

- i. the group – claims 7 and 13.
- ii. said determining and reconfiguring steps – claims 11 and 17.

b. Claim language in the following claims is not clearly understood:

- iii. As per claim 8, line 5, it is unclear if “a new generation of configuration parameters” refers to “a new generation of configuration parameters” in claim 6, line 6 [i.e. if they are the same, then terms such as “said” or “the” should be used].
- iv. As per claim 11, line 4, it is unclear if “a new configuration” refers to “a new configuration” in claim 9, line 2.
- v. As per claim 14, line 6, it is unclear if “a new generation of configuration parameters” refers to “a new generation of configuration parameters” in claim 12, line 7.
- vi. As per claim 17, line 4, it is unclear if “a new configuration” refers to “a new configuration” in claim 15, line 3.

*Claim Rejections – 35 USC 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maltz et al, U.S. Patent Application Publication 2002/0143929 (hereinafter Maltz) in view of Nozawa et al, U.S. Patent 6,272,543 (hereinafter Nozawa).

9. As per claims 6 and 12, Maltz teaches the invention substantially as claimed comprising:
- detecting a node in the cluster which requires re-configuration ([0068]-[0069] and [0073]) (detecting scheduled collection/transmission of statistics);
- identifying a workload hosted by said node ([0068]) (generating statistical summaries based on collected traffic information and storing the statistic in repositories (i.e. database)) and retrieving a set of configuration parameters associated with said workload ([0070], [0076], [0033]) (retrieved the data stored in repositories as input);
- producing a new generation of configuration parameters based upon said retrieved set using a computing process ([0033] and [0125]) (create configuration based on retrieved data stored in repositories using an algorithm); and,
- reconfiguring said node with selected ones of said new generation of configuration parameters ([0033] and [0036]).

10. Although Maltz teaches using genetic computing process ([0049]), however Maltz does not specifically teach producing new generation of configuration parameter using a genetic computing processing. Nozawa teaches producing new generation of configuration parameter using a genetic computing processing (col. 6, line 66-col. 7, line 2; col. 7, lines 26-30; col. 8, lines 19-25).

11. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Maltz and Nozawa because Nozawa's teaching

Art Unit: 2152

of genetic computing process would enhance the configuration of Maltz's system by allowing genetic computing process to search for optimal configuration for the system.

12. As per claims 7 and 13, Maltz and Nozawa teach the invention substantially as claimed in claims 6 and 12 above. Maltz further teach wherein said detecting step comprises the step of detecting at least one condition selected from the group consisting of a node crash, node idleness, node underperformance, and a change in workload hosted in said node ([0073]).

13. As per claims 8 and 14, Maltz and Nozawa teach the invention substantially as claimed in claims 6 and 12 above. Nozawa further teach wherein said producing step comprises the steps of: performing a crossover operation for said configuration parameters in said retrieved set (col. 7, lines 6-16); and, mutating at least one element of said configuration parameters in said retrieved set to produce a new generation of configuration parameters (col. 7, lines 17-30).

14. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Maltz and Nozawa for the same reason as claims 6 and 12 above.

15. As per claims 9 and 15, Maltz and Nozawa teach the invention substantially as claimed in claims 8 and 14 above. Maltz and Nozawa further teach wherein said reconfiguring step comprises the steps of: randomly selecting a new configuration from among said new generation of configuration parameters (see Nozawa, col. 7, lines 6-9, 20-22; see Maltz, [0126]);

Art Unit: 2152

determining whether said randomly selected new configuration is viable (see Maltz, [0126]); and, reconfiguring said node with said randomly selected new configuration only if said new configuration is determined to be viable (see Maltz, [0127]).

16. As per claims 10 and 16, Maltz and Nozawa teach the invention substantially as claimed in claims 9 and 15 above. Maltz further teach comprising the step of writing said randomly selected new configuration to a knowledge base if said randomly selected new configuration is determined to be viable ([0127], [0064], [0037], [0046]) (after configuring the node with viable configuration ([0127], [0064]), the optimization process repeats ([0037], [0046]), which including writing to repositories (430, fig. 4; [0037]).

17. As per claims 11 and 17, Maltz and Nozawa teach the invention substantially as claimed in claims 9 and 15 above. Maltz and Nozawa further teach comprising: measuring node performance for said reconfigured node (see Maltz, [0068],[0071],[0073], see Nozawa, col. 6, lines 58-61); and, if said reconfigured node fails to meet baseline objectives for performance for said reconfigured node (see Nozawa, col. 6, lines 58-63), selecting a new configuration for said node (see Maltz, [0126]; see Nozawa, col. 6, lines 63-64)and performing said determining and reconfiguring steps for said selected new configuration ([0126], [0127]).

## CONCLUSION



Art Unit: 2152

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eshelman et al, US 5,390,283; Atherton et al, US 2003/0061324; Stewart et al, US 7,107,191.

19. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (571)272-3967. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

P.L.

